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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,907	11/25/2003	Tetsushi Tanada	9281-4715	2923

7590 04/11/2005  
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EXAMINER

NGUYEN, THANH NHAN P

ART UNIT PAPER NUMBER

2871

DATE MAILED: 04/11/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,907	<b>Applicant(s)</b> TANADA ET AL.	
	<b>Examiner</b> (Nancy) Thanh-Nhan P Nguyen	<b>Art Unit</b> 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) 6-12 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |  |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>11/25/03</u> . | 6) <input type="checkbox"/> Other: ____  |

## DETAILED ACTION

1. Applicant's election with traverse of Group I, Species I, figs. 3 and 6 (claims 1-5) in the reply filed on 3/14/2005 is acknowledged.

Applicant's arguments regarding the restriction requirement have been considered. However, the traversal was on the grounds is not found persuasive since the combination as claimed does not require the particulars of the subcombination as claimed because of the omission of the particular details of the embossed layer being a heat-embossed layer and/or the base being a embossed base layer. The subcombination has separate utility such as a reflective projection screen without a liquid crystal layer and/or liquid crystal layer being disposed between first and second substrates.

Therefore, the requirement is deemed proper and is considered to be final.

2. Claims 6-12 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 3/14/2005.

### **Claim Rejections - 35 USC § 102**

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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**Claims 1 and 2 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamanaka et al U.S. Patent Application Publication No. 2003/0007113.**

Referring to claim 1, Yamanaka et al discloses a reflector (101) comprising: an embossed layer (2) having a reflective surface having a plurality of recesses (4); and an embossed base (1) disposed on a surface of the embossed layer opposing the reflective surface, [see fig. 2].

Referring to claim 2, Yamanaka et al discloses the embossed layer is a heat-embossed layer, and has a highly reflective film (3) laminated thereon, the highly reflective film having the reflective surface, and the embossed base comprises a moisture-proof base material (glass), [see fig. 6 a-d; par. 0153, 0155, 0156].

**Claim Rejections - 35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka et al in view of Onishi et al U.S. Patent No. 6,434,815; Kitamura et al U.S. Patent No. 6,610,766; and Kudo et al U.S. Patent No. 6,699,956.**

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Referring to claim 3, Yamanaka et al lacks the moisture-proof base material comprises polyphenylene sulfide or polyvinylidene fluoride.

However, polyphenylene sulfide or polyvinylidene fluoride were very well known as moisture-proof materials because of having low moisture absorption characteristic, as evidenced by Onishi et al, [see col. 6, lines 22-25]; Kitamura et al, [see col. 5, lines 30-32]; and Kudo et al, [see col. 1, lines 45-46]. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the moisture-proof base material comprises polyphenylene sulfide or polyvinylidene fluoride because the materials have low moisture absorption characteristic.

**Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka et al in view of Tanii et al JP Patent No. 4011149241A.**

Yamanaka et al lacks disclosure of the heat-embossed layer comprises a lamination of a processed resin layer disposed on the reflective surface side having the recesses, and a support resin layer disposed on the moisture-proof base material side and exhibiting a higher glass transition temperature than that of the processed resin layer.

Tanii et al discloses the heat-embossed layer comprises a lamination of a processed resin layer (polycarbonate 1) disposed on the reflective surface side having the recesses, and a support resin layer (polyvinylidene fluoride 4) disposed on the moisture-proof base material side and exhibiting a higher glass transition temperature than that of the processed resin layer, [see fig. 1; see

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constitution], for the benefit of preventing the deformation of the substrate by the moisture absorption. Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to employ the heat-embossed layer comprises a lamination of a processed resin layer disposed on the reflective surface side having the recesses, and a support resin layer disposed on the moisture-proof base material side and exhibiting a higher glass transition temperature than that of the processed resin layer for the benefit of preventing the deformation of the substrate by the moisture absorption.

**Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamanaka et al in view of Ogiso et al U.S. Patent Application Publication No. 2003/0194646.**

Referring to claim 5, Yamanaka et al lacks disclosure of an adhesive layer laminated on the highly reflective film, and a protecting material provided on the adhesive layer.

However, the language in claim 5 regarding the use as an adhesive layer, or a protecting material is an intended use limitation, and therefore does not patentably distinguish the invention, and it could be also found in Ogiso reference, [see fig. 2].

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Yamanaka et al U.S. Patent Application Publication No. 2003/0007113 discloses a reflector comprising a heat-embossed layer, a highly reflective film laminated thereon, and a moisture-proof base material.

Onishi et al U.S. Patent No. 6,434,815; Kitamura et al U.S. Patent No. 6,610,766; and Kudo et al U.S. Patent No. 6,699,956 disclose the moisture-proof base material comprises polyphenylene sulfide or polyvinylidene fluoride.

Tanii et al JP Patent No. 4011149241A discloses the heat-embossed layer comprises a lamination of a processed resin layer disposed on the reflective surface side having the recesses, and a support resin layer disposed on the moisture-proof base material side and exhibiting a higher glass transition temperature than that of the processed resin layer.

Ogiso et al U.S. Patent Application Publication No. 2003/0194646 discloses an adhesive layer laminated on the highly reflective film, and a protecting material provided on the adhesive layer.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on M-F/9-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert Kim can be reached on 571-272-2293. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

April 1, 2005

TN

  
**ROBERT H. KIM**  
**SUPERVISORY PATENT EXAMINER**  
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